

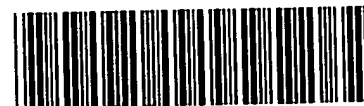
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8/14/02

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/399,003

DATE: 08/02/2002
TIME: 12:12:31

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\08022002\I399003.raw

p.6

3 <110> APPLICANT: Hogrefe, Holly
4 Hansen, Connie J
6 <120> TITLE OF INVENTION: Polymerase Enhancing Factor (PEF) Extracts, PEF Protein
Complexes,
7 Isolated PEF Proteins, and Methods for Purifying and Identifying
9 <130> FILE REFERENCE: 4121.0116-02
11 <140> CURRENT APPLICATION NUMBER: US 09/399,003
12 <141> CURRENT FILING DATE: 1999-09-20
14 <150> PRIOR APPLICATION NUMBER: PCT/ US98/05497
15 <151> PRIOR FILING DATE: 1998-03-20
17 <150> PRIOR APPLICATION NUMBER: US 08/957,709
18 <151> PRIOR FILING DATE: 1997-10-24
20 <150> PRIOR APPLICATION NUMBER: US 08/822,774
21 <151> PRIOR FILING DATE: 1997-03-21
23 <160> NUMBER OF SEQ ID NOS: 89
25 <170> SOFTWARE: PatentIn version 3.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 15
29 <212> TYPE: PRT
30 <213> ORGANISM: Pyrococcus furiosus
32 <220> FEATURE:
33 <221> NAME/KEY: misc_feature
34 <222> LOCATION: (1)..(15)
35 <223> OTHER INFORMATION: "X" represents any amino acid
38 <400> SEQUENCE: 1
40 Xaa Xaa Leu His His Val Lys Leu Ile Tyr Ala Thr Xaa Xaa Xaa
41 1 5 10 15
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 15
46 <212> TYPE: PRT
47 <213> ORGANISM: Pyrococcus furiosus
49 <220> FEATURE:
50 <221> NAME/KEY: misc_feature
51 <222> LOCATION: (1)..(15)
52 <223> OTHER INFORMATION: "X" represents any amino acid
55 <400> SEQUENCE: 2
57 Xaa Xaa Xaa Pro Asp Trp Xaa Xaa Arg Xaa Glu Xaa Leu Xaa Xaa
58 1 5 10 15
61 <210> SEQ ID NO: 3
62 <211> LENGTH: 35
63 <212> TYPE: PRT
64 <213> ORGANISM: Pyrococcus furiosus
66 <220> FEATURE:
67 <221> NAME/KEY: MISC_FEATURE

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151 <223> OTHER INFORMATION: "X" represents any amino acid

154 <400> SEQUENCE: 7

156 Gly Ala Met Leu His His Val Lys Leu Ile Tyr Ala Xaa Lys Leu Arg
 157 1 5 10 15

160 Lys

164 <210> SEQ ID NO: 8

165 <211> LENGTH: 18

166 <212> TYPE: PRT

167 <213> ORGANISM: Pyrococcus furiosus

169 <220> FEATURE:

170 <221> NAME/KEY: misc_feature

171 <222> LOCATION: (1)..(18)

172 <223> OTHER INFORMATION: "X" represents any amino acid

175 <400> SEQUENCE: 8

177 Gly Ala Met Leu His His Val Lys Leu Ile Tyr Ala Thr Lys Xaa Xaa
 178 1 5 10 15

181 Arg Lys

185 <210> SEQ ID NO: 9

186 <211> LENGTH: 13

187 <212> TYPE: PRT

188 <213> ORGANISM: Pyrococcus furiosus

190 <400> SEQUENCE: 9

192 Met Leu His His Val Lys Leu Ile Tyr Ala Thr Lys Leu
 193 1 5 10

196 <210> SEQ ID NO: 10

197 <211> LENGTH: 16

198 <212> TYPE: PRT

199 <213> ORGANISM: Pyrococcus furiosus

201 <220> FEATURE:

202 <221> NAME/KEY: MISC_FEATURE

203 <222> LOCATION: (1)..(16)

204 <223> OTHER INFORMATION: "X" represents any amino acid

207 <400> SEQUENCE: 10

209 Gly Xaa Xaa Xaa Pro Asp Trp Xaa Xaa Lys Phe Arg Lys Glu Glu Ser
 210 1 5 10 15

213 <210> SEQ ID NO: 11

214 <211> LENGTH: 17

215 <212> TYPE: PRT

216 <213> ORGANISM: Pyrococcus furiosus

218 <400> SEQUENCE: 11

220 Gly Ala Ile Leu Leu Pro Asp Trp Lys Ile Arg Lys Glu Ile Leu Ile
 221 1 5 10 15

224 Glu

228 <210> SEQ ID NO: 12

229 <211> LENGTH: 16

230 <212> TYPE: PRT

231 <213> ORGANISM: Pyrococcus furiosus

233 <220> FEATURE:

234 <221> NAME/KEY: MISC_FEATURE

RAW SEQUENCE LISTING

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Input Set : A:\PTO.VSK.txt

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235 <222> LOCATION: (1)..(16)

236 <223> OTHER INFORMATION: "X" represents any amino acid

239 <400> SEQUENCE: 12

241 Xaa Met His His Val Ile Lys Leu Xaa Tyr Ala Thr Xaa Ser Arg Lys

242 1 5 10 15

245 <210> SEQ ID NO: 13

246 <211> LENGTH: 18

247 <212> TYPE: PRT

248 <213> ORGANISM: Pyrococcus furiosus

250 <400> SEQUENCE: 13

252 Met Leu Tyr Leu Val Arg Pro Asp Trp Lys Arg Arg Lys Glu Ile Leu

253 1 5 10 15

256 Ile Glu

260 <210> SEQ ID NO: 14

261 <211> LENGTH: 23

262 <212> TYPE: DNA

263 <213> ORGANISM: Artificial Sequence

265 <220> FEATURE:

266 <223> OTHER INFORMATION: synthetic

268 <400> SEQUENCE: 14

269 caycaygaha arythattta cgc

23

272 <210> SEQ ID NO: 15

273 <211> LENGTH: 23

274 <212> TYPE: DNA

275 <213> ORGANISM: Artificial Sequence

277 <220> FEATURE:

278 <223> OTHER INFORMATION: synthetic

280 <220> FEATURE:

281 <221> NAME/KEY: misc_feature

282 <222> LOCATION: (1)..(23)

283 <223> OTHER INFORMATION: "n" is a, t, g, or c

286 <400> SEQUENCE: 15

287 gccatdatna cdgcrtcgta ttt

23

290 <210> SEQ ID NO: 16

291 <211> LENGTH: 23

292 <212> TYPE: DNA

293 <213> ORGANISM: Artificial Sequence

295 <220> FEATURE:

296 <223> OTHER INFORMATION: synthetic

298 <400> SEQUENCE: 16

299 caycaygaha arythatata cgc

23

302 <210> SEQ ID NO: 17

303 <211> LENGTH: 20

304 <212> TYPE: DNA

305 <213> ORGANISM: Artificial Sequence

307 <220> FEATURE:

308 <223> OTHER INFORMATION: synthetic

310 <400> SEQUENCE: 17

311 ardacdacyt grttttcttc

20

RAW SEQUENCE LISTING
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Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\08022002\I399003.raw

314 <210> SEQ ID NO: 18
315 <211> LENGTH: 1209
316 <212> TYPE: DNA
317 <213> ORGANISM: Pyrococcus furiosus
319 <220> FEATURE:
320 <221> NAME/KEY: misc_feature
321 <222> LOCATION: (1)..(1209)
322 <223> OTHER INFORMATION: "n" is a, t, g, or c
325 <400> SEQUENCE: 18

326	atgcttcacc	acgtcaagct	aatctacgcc	acaaaaagtc	gaaagctagt	tggaaaaaag	60
W--> 328	atagtcnnnn	nnnnnccagg	gagtattgcg	gctttggatg	tgaaagcttg	tgagggacta	120
330	attaggcatg	gggcccgaagt	tcatgcagtg	atgagtgagg	cagccaccaa	gataattcat	180
332	ccttatgcat	ggaatttgcc	cacgggaaat	ccagtcataa	ctgagatcac	tggatttatc	240
334	gagcatgttg	agtttagcagg	ggaacatgag	aataaagcag	atttaatttt	ggtttgcct	300
336	gccactgcca	acacaattag	taagattgca	tgtggaatag	atgatactcc	agtaactaca	360
338	gtcgtgacca	cagcatttcc	ccacattcca	attatgatag	ccccagcaat	gcatgagaca	420
340	atgtacaggc	atcccatagt	aagggagaac	attgaaaggt	taaagaagct	tggcgttgag	480
342	tttataggac	caagaattga	ggagggaaaag	gcaaaagttg	caagcattga	tgaaatagtt	540
344	tacagagtta	ttaaaaagct	ccacaaaaaa	acattggaag	ggaagagagt	cctagtaacg	600
346	gcgggagcaa	caagagagta	catagatcca	ataagattca	taacaaatgc	cagcagtgga	660
348	aaaatgggag	tagcgtttggc	tgaagaagca	gatttttagag	gagctgttac	cctcataaga	720
350	acaaagggaa	gtgtaaaggc	ttttagaatc	agaaaaatca	aattgaaggt	tgagacagtg	780
352	gaagaaatgc	tttcagcgat	tgaaaatgag	ttgaggagta	aaaagtatga	cgtagttatt	840
354	atggcagctg	ctgtaagcga	ttttaggcca	aaaattaaag	cagagggaaa	aattaaaagc	900
W--> 356	ggaagatcaa	taacgataga	gctcgttccn	nnnaatccca	aaatcattga	tagaataaag	960
358	gaaattcaac	caaattgtctt	tcttggttga	tttaaagcag	aaacttcaaa	agaaaagctt	1020
360	atagaagaag	gtaaaaggca	gattgagagg	gccaaggctg	acttagtcgt	tggtaacaca	1080
362	ttggaagcct	ttggaagcga	ggaaaaccaa	gtagtattaa	ttggcagaga	tttcacaaaa	1140
364	gaacttccaa	aaatgaaaaa	gagagagtta	gcagagagaa	tttgggatga	gatagagaaa	1200
W--> 366	tttctgtcc						1209

369 <210> SEQ ID NO: 19
370 <211> LENGTH: 403
371 <212> TYPE: PRT
372 <213> ORGANISM: Pyrococcus furiosus
374 <220> FEATURE:
375 <221> NAME/KEY: MISC_FEATURE
376 <222> LOCATION: (1)..(403)
377 <223> OTHER INFORMATION: "X" represents any amino acid
380 <400> SEQUENCE: 19

382	Met	Leu	His	His	Val	Lys	Leu	Ile	Tyr	Ala	Thr	Lys	Ser	Arg	Lys	Leu
383	1				5				10						15	
W--> 386	Val	Gly	Lys	Lys	Ile	Val	Xaa	Xaa	Xaa	Pro	Gly	Ser	Ile	Ala	Ala	Leu
387					20				25					30		
390	Asp	Val	Lys	Ala	Cys	Glu	Gly	Leu	Ile	Arg	His	Gly	Ala	Glu	Val	His
391					35			40					45			
394	Ala	Val	Met	Ser	Glu	Ala	Ala	Thr	Lys	Ile	Ile	His	Pro	Tyr	Ala	Trp
395					50			55				60				
398	Asn	Leu	Pro	Thr	Gly	Asn	Pro	Val	Ile	Thr	Glu	Ile	Thr	Gly	Phe	Ile
399	65					70				75					80	

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/399,003

DATE: 08/02/2002
TIME: 12:12:32

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,13,14,15
Seq#:2; Xaa Pos. 1,2,3,7,8,10,12,14,15
Seq#:3; Xaa Pos. 1,14,16,21,29,30,32,33,34,35
Seq#:4; Xaa Pos. 1,2,3,7,8,10,12,14,16,17,18
Seq#:5; Xaa Pos. 1
Seq#:7; Xaa Pos. 13
Seq#:8; Xaa Pos. 15,16
Seq#:10; Xaa Pos. 2,3,4,8,9
Seq#:12; Xaa Pos. 1,9,13
Seq#:15; N Pos. 9
Seq#:18; N Pos. 67,68,69,70,71,72,73,74,75,930,931,932,933,1203
Seq#:19; Xaa Pos. 23,24,25,311,401
Seq#:32; N Pos. 15
Seq#:33; N Pos. 15
Seq#:34; N Pos. 15
Seq#:35; N Pos. 15
Seq#:36; N Pos. 20,66
Seq#:37; Xaa Pos. 12,22
Seq#:38; Xaa Pos. 7,22
Seq#:39; Xaa Pos. 7,9
Seq#:41; Xaa Pos. 1
Seq#:42; N Pos. 665,684,686,697,699,700,703,740
Seq#:43; Xaa Pos. 7,9,14,24,26,30,50,52,64,76,78,96,118,121,134,139,153,209
Seq#:43; Xaa Pos. 213,221,228,232,233,234,237,246
Seq#:44; Xaa Pos. 105,129,198,206,215,222,225,228,229,232,233,234
Seq#:45; Xaa Pos. 43,60,110,117,155,162,170,180,195,222,227,229,233,234,235
Seq#:45; Xaa Pos. 243
Seq#:46; Xaa Pos. 23,24,25
Seq#:51; Xaa Pos. 84,85,86,87,88,97,98,99,100,154,155,180,181,182,183,184
Seq#:51; Xaa Pos. 185,287,288,290,311,322,323,324,325,333,348,389,390,417
Seq#:51; Xaa Pos. 434,435,436,437
Seq#:52; Xaa Pos. 104,105,106,107,144,145,173,197,198,294,295,340,368,369
Seq#:52; Xaa Pos. 370,371
Seq#:53; Xaa Pos. 1,3,4,6,7,8,9,11,12,13,14
Seq#:72; Xaa Pos. 1,3,4,6,7,8,10,11,12,13